

#### Material Requirements

TAMKO VERSA-BASE® Modified Asphalt Base Sheet	1 ply
TAMKO VERSA-CAP FR® Modified Asphalt Cap Sheet	1 ply
Asphalt (Per 100 sq. ft.)	Approx. 46 lbs.

**Slope:** Positive drainage up to 3 in. per linear ft. For slopes above 3/4 in. per linear ft., fastening of the VERSA-CAP FR is required.

**Deck:** The deck should conform to TAMKO general requirements.

**Insulation:** The insulation should be installed according to the manufacturer's specification in the thickness required. The insulation should conform to TAMKO requirements. Polyisocyanurate and expanded polystyrene must have an overlay of a minimum 1/2 in. fiberboard, perlite, or fiberglass roof insulation.

**Asphalt:** The asphalt should be certified by the manufacturer to meet ASTM D-312, Type IV.

**VERSA-BASE Sheet:** Starting at the low point of the roof, install a 1/2 m width. Then install a full 1 m width, side lapped 2 in. and end lapped 4 in. in order to offset the laps of the cover sheet. Apply at a right angle to the slope of the roof. Solid mop to the insulation with approximately 23 lbs. (±15%) of specification asphalt per 100 sq. ft. The asphalt should be above 400° F at the point of application and mopped no more than 4 ft. in front of the roll.

**VERSA-CAP FR:** Starting at the low point of the roof and offsetting the laps of the base ply, install 1 layer of TAMKO VERSA-CAP FR granule surfaced sheet, side lapped 3 in. and end lapped 4 in. The VERSA-CAP FR should be solidly adhered to the base ply (pressed into the hot asphalt) with approximately 23 lbs. (±15%) of specification asphalt per 100 sq. ft. The asphalt should be above 400° F at the point of application and mopped no more than 4 ft. in front of the roll.

**Flashing:** The flashing material **must** be a TAMKO polyester reinforced modified asphalt flashing material.

**NOTE: VERSA-CAP FR IS NOT AN ACCEPTABLE FLASHING MATERIAL.**

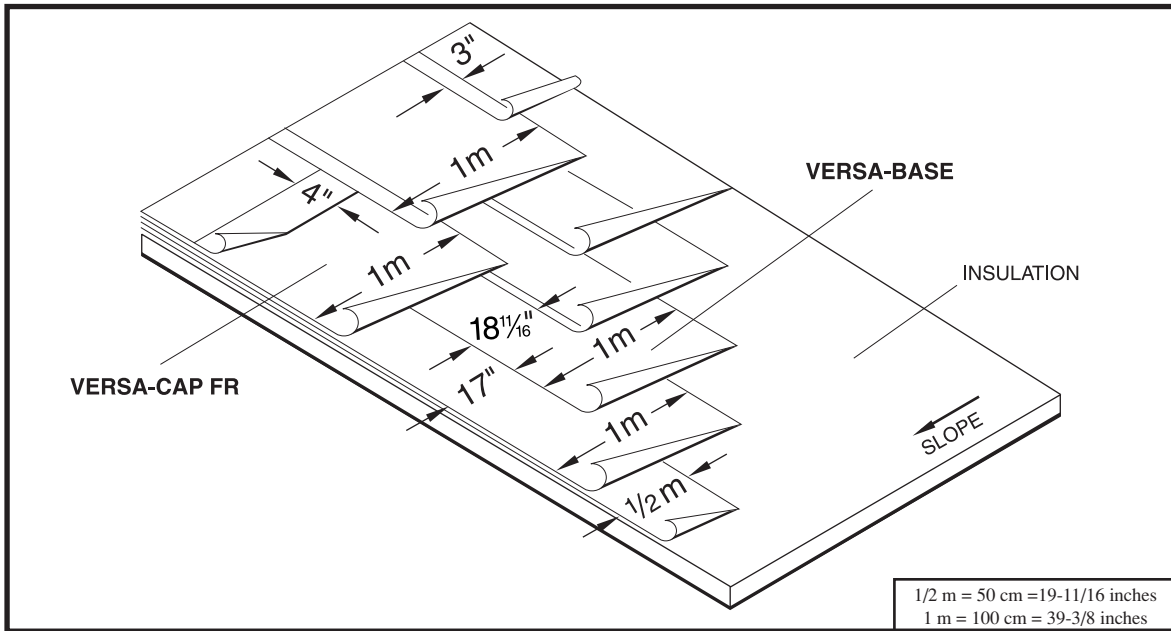
#### U.L. Requirements:

Contact TAMKO for information on U.L. systems requirements.

**Caution:** A product(s) in this specification contains crystalline silica and formaldehyde. Crystalline silica and formaldehyde have been classified as "known" human carcinogens by the International Agency for Research on Cancer (IARC) and the National Toxicology Program. A product(s) in this specification also contains oxidized asphalt. Occupational exposures to oxidized asphalt and its emissions during roofing have been classified by IARC as a "probable human carcinogen". Oxidized asphalt also contains Polycyclic Aromatic Hydrocarbons some of which have been classified by IARC as known or probable human carcinogens. The physical nature of the product(s) in this specification may help limit any inhalation or dermal hazard during application and/or removal. However, physical forces such as sawing, grinding or drilling during demolition work and heating or burning may increase the inhalation

or dermal exposure hazard of the product(s) in this specification. Take precautions to prevent breathing and contact with skin.

Application of product(s) in this specification using “hot mopped” applications may expose workers and others in the work area to oxidized asphalt and its emissions. The International Agency for Research on Cancer has classified occupational exposures to oxidized asphalt and its emissions during roofing as a “probable human carcinogen.” During installation and removal of the product(s) in this specification, including “hot mopped” application, workers must take precautions to assure adequate ventilation and use effective personal protective equipment to prevent exposures to dusts, fumes, vapors and mists. It is the responsibility of the contractor and workers to protect themselves and others in the work area from exposure to oxidized asphalt and its emissions when applying the product(s) in this specification.



#### Material Requirements

TAMKO VERSA-BASE® Modified Asphalt Base Sheet	2 plies
TAMKO VERSA-CAP FR® Modified Asphalt Cap Sheet	1 ply
Asphalt (Per 100 sq. ft.)	Approx. 69 lbs.

**Slope:** Positive drainage up to 3 in. per linear ft. For slopes above 3/4 in. per linear ft., fastening of the VERSA-CAP FR is required.

**Deck:** The deck should conform to TAMKO general requirements.

**Insulation:** The insulation should be installed according to the manufacturer's specification in the thickness required. The insulation should conform to TAMKO requirements. Polyisocyanurate and expanded polystyrene must have an overlay of a minimum 1/2 in. fiberboard, perlite, or fiberglass roof insulation.

**Asphalt:** The asphalt should be certified by the manufacturer to meet ASTM D-312, Type IV.

**VERSA-BASE Sheet 2 Ply Installation:** Over the insulation, install 2 plies of VERSA-BASE Modified Asphalt Base Sheet in specification asphalt. Starting from the low point of the roof, install a 1/2 m width, then a full 1 m width. Follow with full 1 m widths, shingle fashion, lapping each ply 20-11/16 in. in such a manner so that at least 2plies cover the insulation at any one point. Approximately 23 lbs. (±15%) of specification asphalt per 100 sq. ft. should be used to embed each ply. The asphalt should be above 400° F at the point of application and mopped no more than 4 ft. in front of the roll.

**VERSA-CAP FR:** Starting at the low point of the roof and off-setting the laps of the VERSA-BASE, install 1 layer of TAMKO VERSA-CAP FR granule surfaced sheet, side lapped 3 in. and end lapped 4 in. The VERSA-CAP FR should be solidly adhered to the VERSA-BASE (pressed into the hot asphalt) with approximately 23 lbs. (±15%) of specification asphalt per 100 sq. ft. The asphalt should be above 400° F at the point of application and mopped no more than 4 ft. in front of the roll.

**Flashing:** The flashing material **must** be a TAMKO polyester reinforced modified asphalt flashing material.

**NOTE: VERSA-CAP FR IS NOT AN ACCEPTABLE FLASHING MATERIAL.**

#### U.L. Requirements:

Contact TAMKO for information on U.L. systems requirements.

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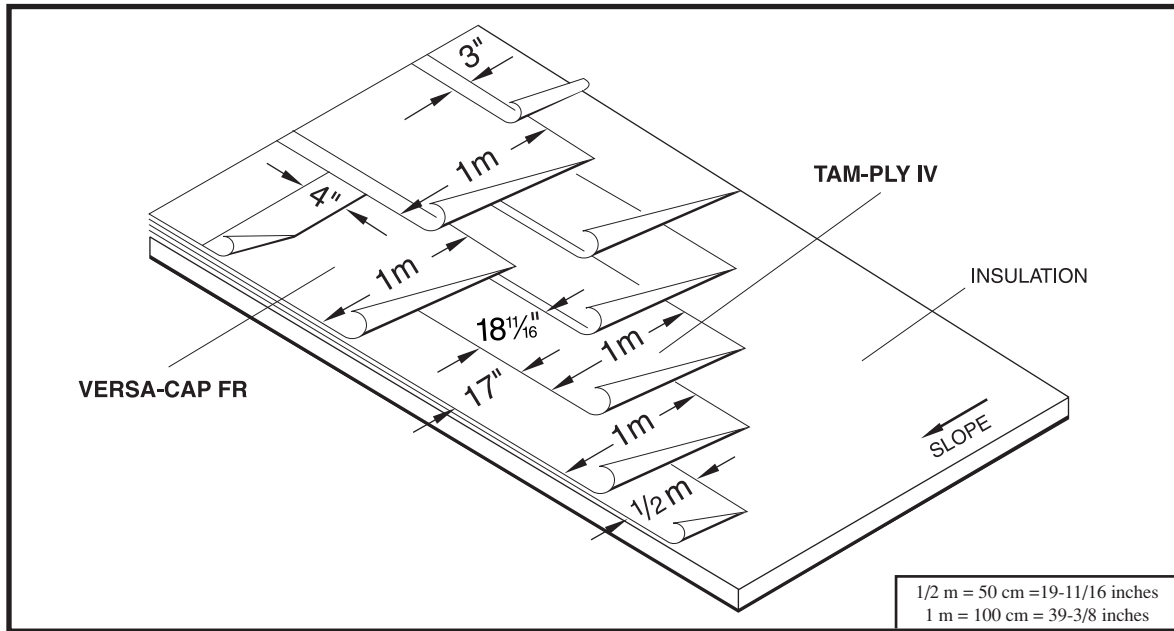
# SPECIFICATION SUBMITTAL

**703 VERSA-CAP FR**

INSULATED DECKS

Application of product(s) in this specification using “hot mopped” applications may expose workers and others in the work area to oxidized asphalt and its emissions. The International Agency for Research on Cancer has classified occupational exposures to oxidized asphalt and its emissions during roofing as a “probable human carcinogen.” During installation and removal of the product(s) in this specification, including “hot mopped” application, workers must take precautions to assure adequate ventilation and use effective personal protective equipment to prevent exposures to dusts, fumes, vapors and mists. It is the responsibility of the contractor and workers to protect themselves and others in the work area from exposure to oxidized asphalt and its emissions when applying the product(s) in this specification.

For complete information on TAMKO’s recommendations and requirements, consult TAMKO’s web site at [www.tamko.com](http://www.tamko.com)  
TAMKO Building Products, Inc., P. O. Box 1404, Joplin, MO 64802 • 1-800-641-4691 • [www.tamko.com](http://www.tamko.com)  
TAMKO®, Versa-Cap FR® and Versa-Base® are registered trademarks of TAMKO Building Products, Inc.



#### Material Requirements

<b>TAMKO TAM-PLY IV®</b> Fiberglass Ply Sheet	<b>2 plies</b>
<b>TAMKO VERSA-CAP FR®</b> Modified Asphalt Cap Sheet	<b>1 ply</b>
<b>Interply Asphalt (Per 100 sq. ft.)</b>	<b>Approx. 69 lbs.</b>

**Slope:** Positive drainage up to 3 in. per linear ft. **For slopes above 3/4 in. per linear ft.,** fastening of the VERSA-CAP FR is required.

**Deck:** The deck should conform to TAMKO general requirements.

**Insulation:** The insulation should be installed according to the manufacturer's specification in the thickness required. The insulation should conform to TAMKO requirements. Polyisocyanurate and expanded polystyrene must have an overlay of a minimum 1/2 in. fiberboard, perlite, or fiberglass roof insulation.

**Asphalt:** The asphalt should be certified by the manufacturer to meet ASTM D-312, **Type IV.**

**Fiberglass Ply Sheet 2 Ply Installation:** Over the insulation, install 2 plies of TAM-PLY IV in specification asphalt. Starting from the low point of the roof, install a 1/2 m width, then a full 1 m width. Follow with full 1 m widths, shingle fashion, lapping each ply 20-11/16 in such a manner so that at least 2 plies cover the insulation at any one point. Approximately 23 lbs. ( $\pm 15\%$ ) of specification asphalt per 100 sq. ft. should be used to embed each ply.

**VERSA-CAP FR:** Starting at the low point of the roof, install 1 layer of TAMKO VERSA-CAP FR granule surfaced sheet, side lapped 3 in. and end lapped 4 in. The VERSA-CAP FR should be solidly adhered to the TAM-PLY IV (pressed into the hot asphalt) with approximately 23 lbs. ( $\pm 15\%$ ) of specification asphalt per 100 sq. ft. The asphalt should be above 400° F at the point of application and mopped no more than 4 ft. in front of the roll.

**Flashing:** The flashing material **must** be a TAMKO polyester reinforced modified asphalt flashing material.

**NOTE: VERSA-CAP FR IS NOT AN ACCEPTABLE FLASHING MATERIAL.**

**U.L. Requirements:**  
Contact TAMKO for information on U.L. systems requirements.

**Caution:** A product(s) in this specification contains formaldehyde. Formaldehyde has been classified as a "known" human carcinogen by the International Agency for Research on Cancer (IARC) and the National Toxicology Program. A product(s) in this specification also contains oxidized asphalt. Occupational exposures to oxidized asphalt and its emissions during roofing have been classified by IARC as a "probable human carcinogen". Oxidized asphalt also contains Polycyclic Aromatic Hydrocarbons some of which have been classified by IARC as known or probable human carcinogens. The physical nature of the product(s) in this specification may help limit any inhalation or dermal hazard during application and/or removal. However, physical forces such as sawing, grinding or drilling during demolition work and heating or burning may increase the inhalation or dermal exposure hazard of the product(s) in this specification. Take precautions to prevent breathing and contact with skin.



# SPECIFICATION SUBMITTAL

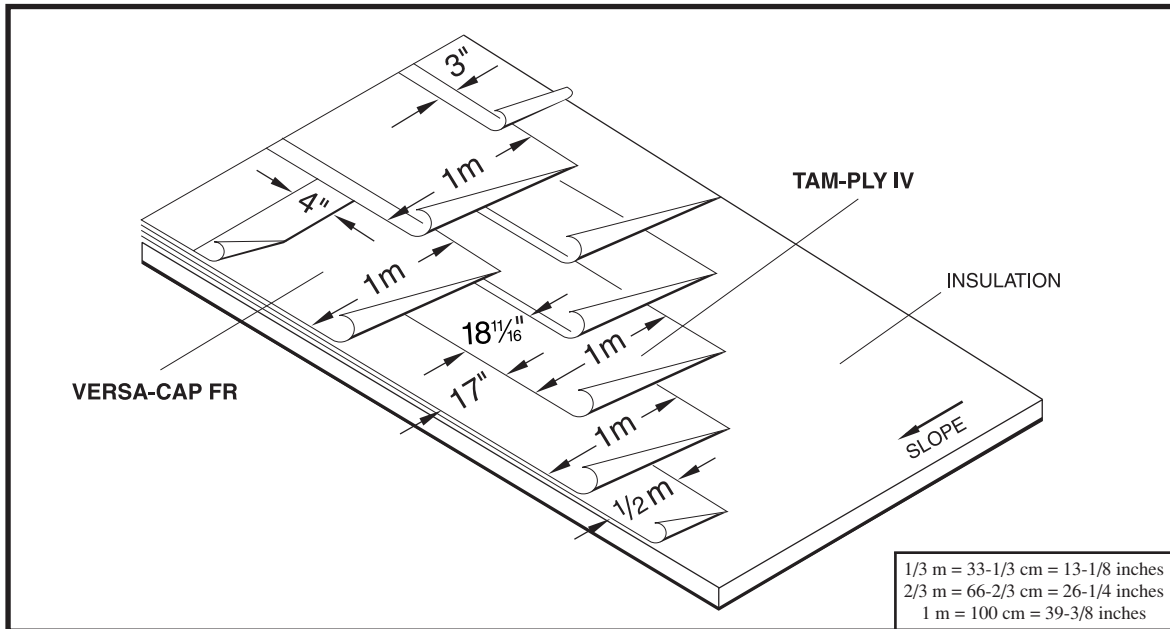
**704 VERSA-CAP FR**  
**(Regions 2 & 3)**

INSULATED DECKS

Application of product(s) in this specification using “hot mopped” applications may expose workers and others in the work area to oxidized asphalt and its emissions. The International Agency for Research on Cancer has classified occupational exposures to oxidized asphalt and its emissions during roofing as a “probable human carcinogen.” During installation and removal of the product(s) in this specification, including “hot mopped” application, workers must take precautions to assure adequate ventilation and use effective personal protective equipment to prevent exposures to dusts, fumes, vapors and mists. It is the responsibility of the contractor and workers to protect themselves and others in the work area from exposure to oxidized asphalt and its emissions when applying the product(s) in this specification.

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TAMKO Building Products, Inc., P. O. Box 1404, Joplin, MO 64802 • 1-800-641-4691 • [www.tamko.com](http://www.tamko.com)

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### Material Requirements

TAMKO TAM-PLY IV® Fiberglass Ply Sheet	<b>3 plies</b>
TAMKO VERSA-CAP FR® Modified Asphalt Cap Sheet	<b>1 ply</b>
Asphalt (Per 100 sq. ft.)	<b>Approx. 92 lbs.</b>

**Slope:** Positive drainage up to 3 in. per linear ft. For slopes above 3/4 in. per linear ft., fastening of the VERSA-CAP FR is required.

**Deck:** The deck should conform to TAMKO general requirements.

**Insulation:** The insulation should be installed according to the manufacturer's specification in the thickness required. The insulation should conform to TAMKO requirements. Polyisocyanurate and expanded polystyrene must have an overlay of a minimum 1/2 in. fiberboard, perlite, or fiberglass roof insulation.

**Asphalt:** The asphalt should be certified by the manufacturer to meet ASTM D-312, Type IV.

**Fiberglass Ply Sheets:** Over the insulation, install 3 plies of TAMKO TAM-PLY IV in specification asphalt. Starting from the low point of the roof, apply a 1/3 m width, then a 2/3 m width and follow with full 1 m widths, shingle fashion, lapping each ply 26-15/16 in. in such a manner so that at least 3 plies of ply sheet cover the insulation at any point. Approximately 23 lbs. (±15%) of specification asphalt per 100 sq. ft. should be used to embed each ply.

**VERSA-CAP FR:** Starting at the low point of the roof, install 1 layer of TAMKO VERSA-CAP FR granule surfaced sheet, side lapped 3 in. and end lapped 4 in. The VERSA-CAP FR should be solidly adhered to the TAM-PLY IV (pressed into the hot asphalt) with approximately 23 lbs. (±15%) of specification asphalt per 100 sq. ft. The asphalt should be above 400° F at the point of application and mopped no more than 4 ft. in front of the roll.

**Flashing:** The flashing material **must** be a TAMKO polyester reinforced modified asphalt flashing material.

**NOTE: VERSA-CAP FR IS NOT AN ACCEPTABLE FLASHING MATERIAL.**

**U.L. Requirements:**  
Contact TAMKO for information on U.L. systems requirements.

**Caution:** A product(s) in this specification contains formaldehyde. Formaldehyde has been classified as a "known" human carcinogen by the International Agency for Research on Cancer (IARC) and the National Toxicology Program. A product(s) in this specification also contains oxidized asphalt. Occupational exposures to oxidized asphalt and its emissions during roofing have been classified by IARC as a "probable human carcinogen". Oxidized asphalt also contains Polycyclic Aromatic Hydrocarbons some of which have been classified by IARC as known or probable human carcinogens. The physical nature of the product(s) in this specification may help limit any inhalation or dermal hazard during application and/or removal. However, physical forces such as sawing, grinding or drilling during demolition work and heating or burning may increase the inhalation or dermal exposure hazard of the product(s) in this specification. Take precautions to prevent breathing and contact with skin.



# SPECIFICATION SUBMITTAL

705 VERSA-CAP FR

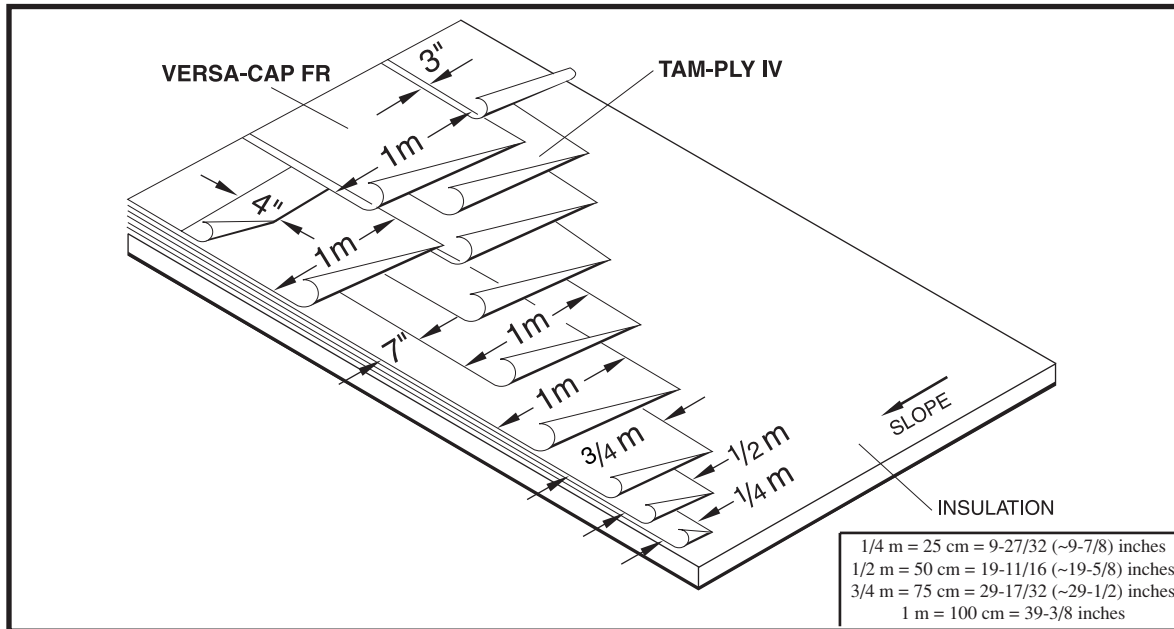
INSULATED DECKS

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For complete information on TAMKO’s recommendations and requirements, consult TAMKO’s web site at [www.tamko.com](http://www.tamko.com)  
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**Material Requirements**

TAMKO TAM-PLY IV® Fiberglass Ply Sheet	4 plies
TAMKO VERSA-CAP FR® Modified Asphalt Cap Sheet	1 ply
Interply Asphalt (Per 100 sq. ft.)	Approx. 115 lbs.

**Slope:** Positive drainage up to 3 in. per linear ft. For slopes above 3/4 in. per linear ft., fastening of the VERSA-CAP FR is required.

**Deck:** The deck should conform to TAMKO general requirements.

**Insulation:** The insulation should be installed according to the manufacturer's specification in the thickness required. The insulation should conform to TAMKO requirements. Polyisocyanurate and expanded polystyrene must have an overlay of a minimum 1/2 in. fiberboard, perlite, or fiberglass roof insulation.

**Asphalt:** The asphalt should be certified by the manufacturer to meet ASTM D-312, Type IV.

**Fiberglass Ply Sheets:** Over the insulation, install 4 plies of TAMKO TAM-PLY IV Fiberglass Ply Sheet in specification asphalt. Starting from the low point of the roof, apply a 1/4 m width, a 1/2 m width, then a 3/4 m width. Follow with full 1 m widths, shingle fashion, lapping each ply 30-1/16 in. in such a manner so that at least 4 plies of ply sheet cover the insulation at any point. Approximately 23 lbs. (±15%) of specification asphalt per 100 sq. ft. should be used to embed each ply.

**VERSA-CAP FR:** Starting at the low point of the roof, install 1 layer of TAMKO VERSA-CAP FR granule surfaced sheet, side lapped 3 in. and end lapped 4 in. The VERSA-CAP FR should be solidly adhered to the TAM-PLY IV (pressed into the hot asphalt) with approximately 23 lbs. (±15%) of specification asphalt per 100 sq. ft. The asphalt should be above 400° F at the point of application and mopped no more than 4 ft. in front of the roll.

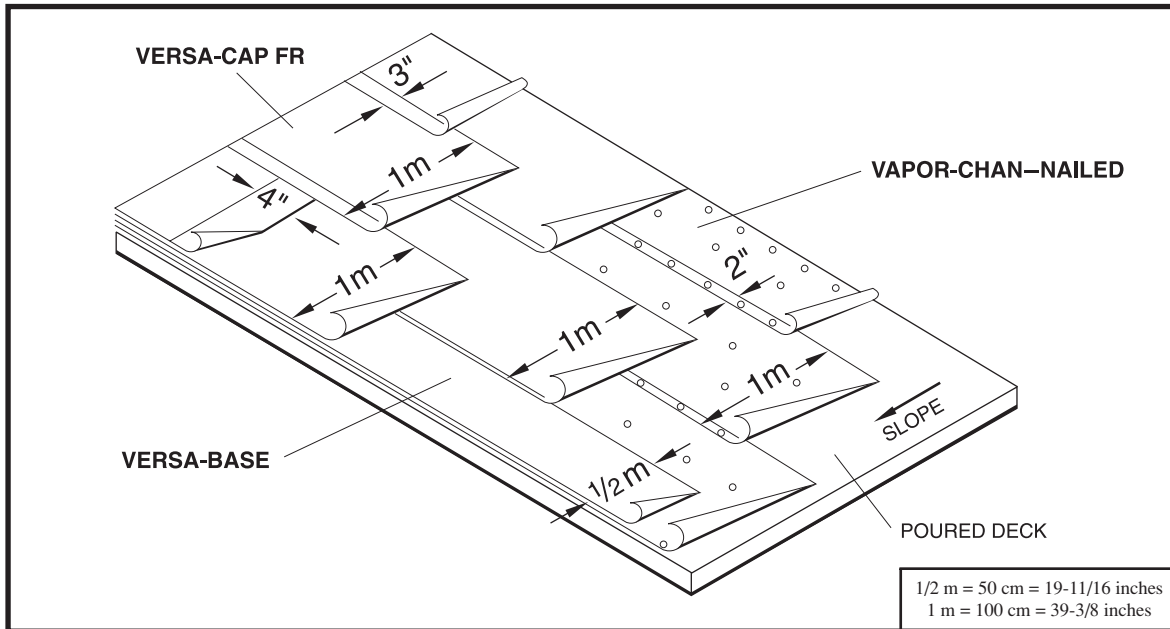
**Flashing:** The flashing material **must** be a TAMKO polyester reinforced modified asphalt flashing material.

**NOTE: VERSA-CAP FR IS NOT AN ACCEPTABLE FLASHING MATERIAL.**

**U.L. Requirements:**  
Contact TAMKO for information on U.L. systems requirements.

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1/2 m = 50 cm = 19-11/16 inches  
 1 m = 100 cm = 39-3/8 inches

### Material Requirements

TAMKO VAPOR-CHAN® Fiberglass Venting Asphalt Base Sheet	1 ply
TAMKO VERSA-BASE® Modified Asphalt Base Sheet	1 ply
TAMKO VERSA-CAP FR® Modified Asphalt Cap Sheet	1 ply
Asphalt (Per 100 sq. ft.)	Approx. 46 lbs.
Clinch-type nails for base sheet (Per 100 sq. ft.)	Approx. 100 Nails

**Slope:** Positive drainage up to 3 in. per linear ft. **For slopes above 3/4 in. per linear ft.,** fastening of the VERSA-CAP FR is required.

**Deck:** The deck should conform to TAMKO general requirements.

**Asphalt:** The asphalt should be certified by the manufacturer to meet ASTM D-312, **Type IV.**

**VAPOR-CHAN:** Starting at the low point of the roof, install 1 ply of TAMKO VAPOR-CHAN, side lapped 2 in. and end lapped 4 in. Apply at a right angle to the slope of the roof. Nail the sheets along the lap at intervals of no more than 8 in. Stagger-nail down the center of the sheet on 16 in. centers along 2 lines located 13 in. from each edge of the base sheet. **For specific fastening patterns for wind uplift listings, contact the Technical Services Department.**

**VERSA-BASE Sheet:** Starting at the low point of the roof, install a 1/2 m width. Then install a full 1 m width, side lapped 2 in. and end lapped 4 in. in order to offset the laps of the cover sheet. Apply at a right angle to the slope of the roof. Solid mop to the base ply with approximately 23 lbs. (±15%) of specification asphalt per 100 sq. ft. The asphalt should be above 400° F at the point of application and mopped no more than 4 ft. in front of the roll.

**VERSA-CAP FR:** Starting at the low point of the roof and offsetting the laps of the VERSA-BASE, install 1 layer of TAMKO VERSA-CAP FR granule surfaced sheet, side lapped 3 in. and end lapped 4 in. The VERSA-CAP FR should be solidly adhered to the VERSA-BASE (pressed into the hot asphalt) with approximately 23 lbs. (±15%) of specification asphalt per 100 sq. ft. The asphalt should be above 400° F at the point of application and mopped no more than 4 ft. in front of the roll.

**Flashing:** The flashing material **must** be a TAMKO polyester reinforced modified asphalt flashing material.

**NOTE: VERSA-CAP FR IS NOT AN ACCEPTABLE FLASHING MATERIAL.**

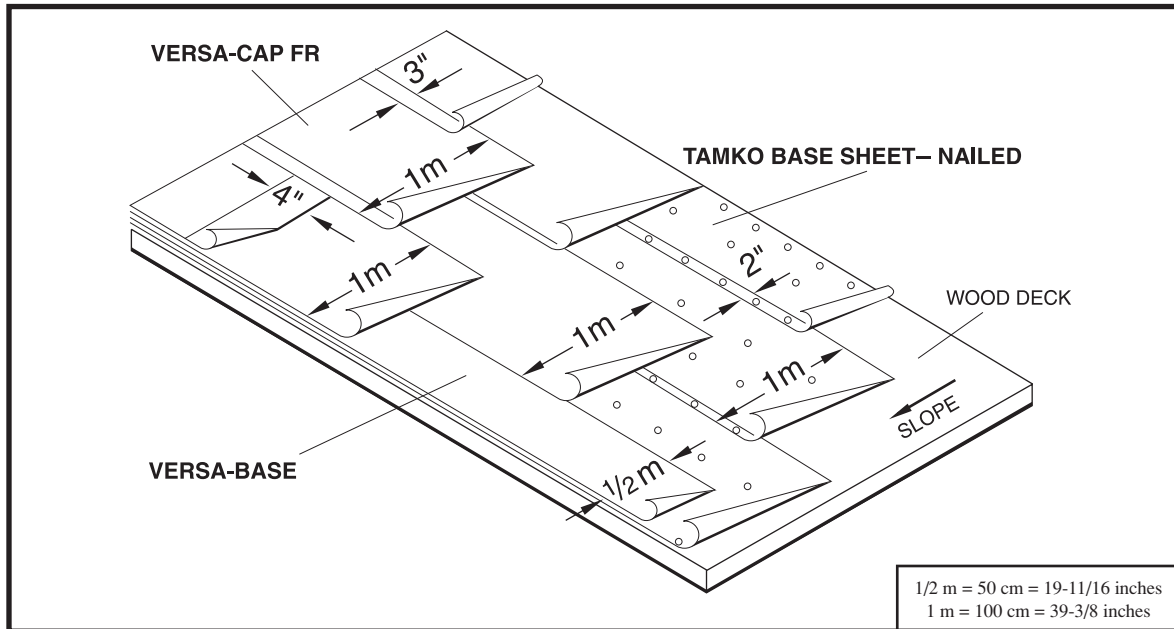
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#### Material Requirements

TAMKO GLASS-BASE® or BASE-N-PLY®	1 ply
TAMKO VERSA-BASE®	1 ply
Modified Asphalt Base Sheet	1 ply
TAMKO VERSA-CAP FR®	1 ply
Modified Asphalt Cap Sheet	1 ply
Asphalt (Per 100 sq. ft.)	Approx. 46 lbs.
Clinch-type nails for base sheet (Per 100 sq. ft.)	Approx. 100 Nails

**Slope:** Positive drainage up to 3 in. per linear ft. **For slopes above 3/4 in. per linear ft.,** fastening of the VERSA-CAP FR is required.

**Deck:** The deck should conform to TAMKO general requirements.

**Asphalt:** The asphalt should be certified by the manufacturer to meet ASTM D-312, **Type IV.**

**BASE SHEET:** Starting at the low point of the roof, install 1 ply of TAMKO TYPE 43 Coated Base Sheet, GLASS-BASE, or BASE-N-PLY, beginning with a 1/2 m width, then a full 1 m width, side lapped 2 in. and end lapped 4 in. Apply at a right angle to the slope of the roof. Nail GLASS-BASE or BASE-N-PLY sheets along the lap at intervals of no more than 8 in. Stagger-nail on 16 in. centers along 2 lines located 13 in. from each of the base sheet. Nail TYPE 43 Coated Base Sheet along the lap at intervals of no more than 9 in. Stagger-nail on 18 in. centers along 2 lines located 12 in. from each edge of the base sheet. **For specific fastening patterns for wind uplift listings, contact the Technical Services Department.**

**VERSA-BASE Sheet:** Starting at the low point of the roof, install a 1/2 m width. Then install a full 1 m width, side lapped 2 in. and end lapped 4 in. in order to offset the laps of the cover sheet. Apply at a right angle to the slope of the roof. Solid mop to the base ply with approximately 23 lbs. ( $\pm 15\%$ ) of specification asphalt per 100 sq. ft. The asphalt should be above 400° F at the point of application and mopped no more than 4 ft. in front of the roll.

**VERSA-CAP FR:** Starting at the low point of the roof and offsetting the laps of the VERSA-BASE, install 1 layer of TAMKO VERSA-CAP FR granule surfaced sheet, side lapped 3 in. and end lapped 4 in. The VERSA-CAP FR should be solidly adhered to the VERSA-BASE (pressed into the hot asphalt) with approximately 23 lbs. ( $\pm 15\%$ ) of specification asphalt per 100 sq. ft. The asphalt should be above 400° F at the point of application and mopped no more than 4 ft. in front of the roll.

**Flashing:** The flashing material **must** be a TAMKO polyester reinforced modified asphalt flashing material.

**NOTE: VERSA-CAP FR IS NOT AN ACCEPTABLE FLASHING MATERIAL.**

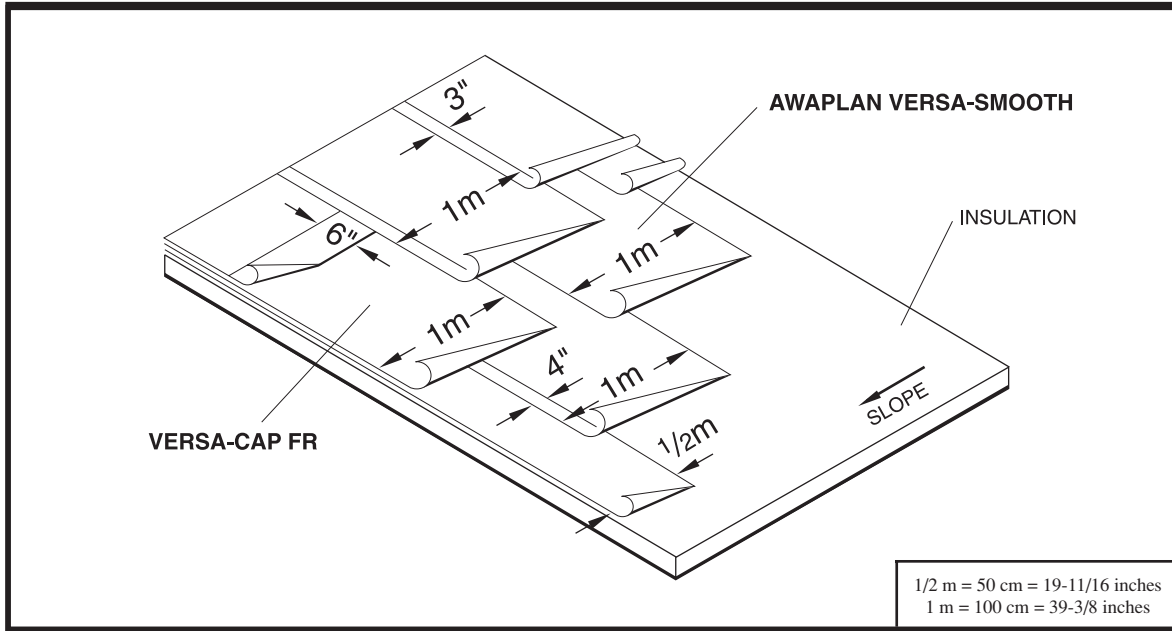
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#### Material Requirements

TAMKO AWAPLAN VERSA-SMOOTH	1 ply
TAMKO VERSA-CAP FR® Modified Asphalt Cap Sheet	1 ply
Asphalt (Per 100 sq. ft.)	Approx. 46 lbs.

**Slope:** Positive drainage up to 3 in. per linear ft. For slopes above 3/4 in. per linear ft., fastening of the VERSA-CAP FR is required.

**Deck:** The deck should conform to TAMKO general requirements.

**Insulation:** The insulation should be installed according to the manufacturer's specification in the thickness required. The insulation should conform to TAMKO requirements. Polyisocyanurate and expanded polystyrene must have an overlay of a minimum 1/2 in. fiberboard, perlite, or fiber-glass roof insulation.

**Asphalt:** The asphalt should be certified by the manufacturer to meet ASTM D-312, Type IV.

**AWAPLAN VERSA-SMOOTH:** Starting at the low point of the roof, install 1 ply of TAMKO AWAPLAN VERSA-SMOOTH, beginning with a 1/2 m width, then a full 1 m width side lapped 4 in. and end lapped 6 in. Apply at a right angle to the slope of the roof. The AWAPLAN VERSA-SMOOTH should be solidly adhered to the insulation (pressed into the hot asphalt) with approximately 23 lbs. (±15%) of specification asphalt per 100 sq.ft. The asphalt should be above 400° F at the point of application and mopped no more than 4 ft. in front of the roll.

Alternately, AWAPLAN VERSA-SMOOTH can be heat welded and should be solidly adhered to the insulation by sufficiently heating the back side with a torch at the juncture of the insulation and the AWAPLAN VERSA-SMOOTH roll to form a bead of melted asphalt as the AWAPLAN VERSA-SMOOTH is rolled out. Use care when applying heat as damage can occur to the product by overheating.

**VERSA-CAP FR:** Starting at the low point of the roof and offsetting the laps of the base ply, install 1 layer of TAMKO VERSA-CAP FR granule surfaced sheet, side lapped 3 in. and end lapped 4 in. The VERSA-CAP FR should be solidly adhered to the base ply (pressed into the hot asphalt) with approximately 23 lbs. (±15%) of specification asphalt per 100 sq. ft. The asphalt should be above 400° F at the point of application and mopped no more than 4 ft. in front of the roll.

**Flashing:** The flashing material must be a TAMKO polyester reinforced modified asphalt flashing material.

**NOTE: VERSA-CAP FR IS NOT AN ACCEPTABLE FLASHING MATERIAL.**

#### U.L. Requirements:

Contact TAMKO for information on U.L. systems requirements.

**Caution:** A product(s) in this specification contains crystalline silica and formaldehyde. Crystalline silica and formaldehyde have been classified as "known" human carcinogens by the International Agency for Research on Cancer (IARC) and the National Toxicology Program. A product(s) in this specification also contains oxidized asphalt. Occupational exposures to oxidized asphalt and its emis-



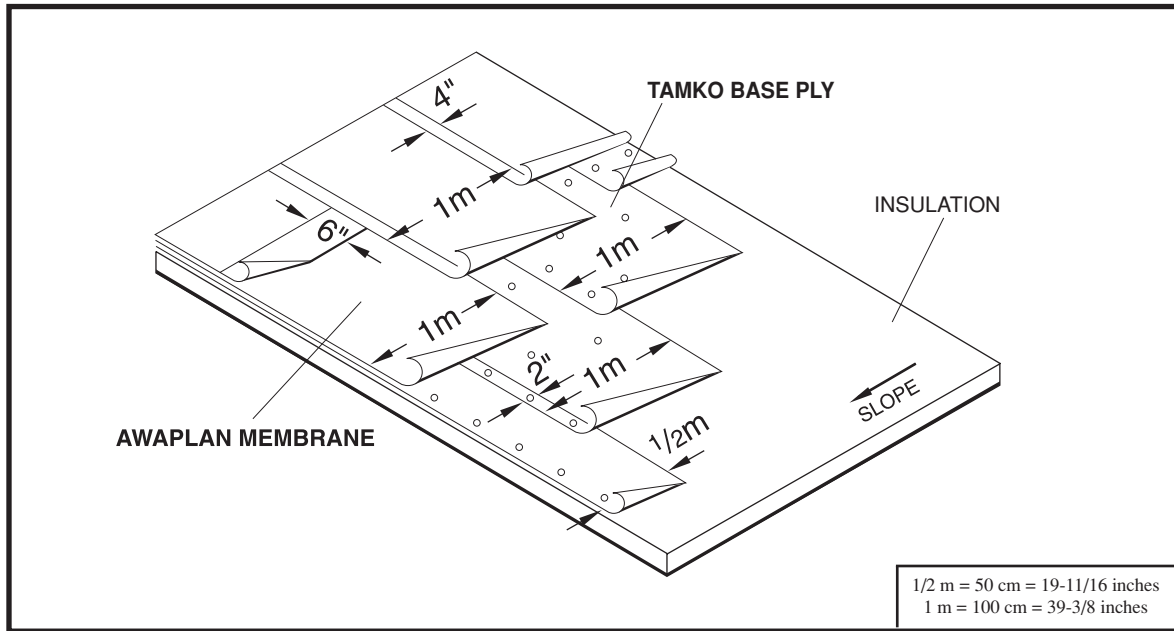
sions during roofing have been classified by IARC as a “probable human carcinogen”. Oxidized asphalt also contains Polycyclic Aromatic Hydrocarbons some of which have been classified by IARC as known or probable human carcinogens. The physical nature of the product(s) in this specification may help limit any inhalation or dermal hazard during application and/or removal. However, physical forces such as sawing, grinding or drilling during demolition work and heating or burning may increase the inhalation or dermal exposure hazard of the product(s) in this specification. Take precautions to prevent breathing and contact with skin.

Application of product(s) in this specification using “torch applied” or “hot mopped” applications may expose workers and others in the work area to oxidized asphalt and its emissions. The International Agency for Research on Cancer has classified occupational exposures to oxidized asphalt and its emissions during roofing as a “probable human carcinogen.” During installation and removal of the product(s) in this specification, including “torch applied” or “hot mopped” application, workers must take precautions to assure adequate ventilation and use effective personal protective equipment to prevent exposures to dusts, fumes, vapors and mists. It is the responsibility of the contractor and workers to protect themselves and others in the work area from exposure to oxidized asphalt and its emissions when applying the product(s) in this specification.



## 745 VERSA-CAP FR

NAILABLE DECKS (GYPSUM AND LIGHTWEIGHT INSULATING CONCRETE)



### Material Requirements

TAMKO VAPOR-CHAN® Fiberglass Venting Asphalt Base Sheet	1 ply
AWAPLAN VERSA-SMOOTH Modified Asphalt Base Sheet	1 ply
TAMKO VERSA-CAP FR® Modified Asphalt Cap Sheet	1 ply
Asphalt (Per 100 sq. ft.)	Approx. 46 lbs.
Clinch-type nails for base sheet (Per 100 sq. ft.)	Approx. 100 Nails

**Slope:** Positive drainage up to 3 in. per linear ft. For slopes above 3/4 in. per linear ft., fastening of the VERSA-CAP FR is required.

**Deck:** The deck should conform to TAMKO general requirements.

**Asphalt:** The asphalt should be certified by the manufacturer to meet ASTM D-312, Type IV.

**VAPOR-CHAN:** Starting at the low point of the roof, install 1 ply of TAMKO VAPOR-CHAN, side lapped 2 in. and end lapped 4 in. Apply at a right angle to the slope of the roof. Nail the sheets along the lap at intervals of no more than 8 in. Stagger-nail down the center of the sheet on 16 in. centers along 2 lines located 13 in. from each edge of the base sheet. For specific fastening patterns for wind uplift listings, contact the Technical Services Department.

**AWAPLAN VERSA-SMOOTH:** Starting at the low point of the roof, install 1 ply of TAMKO AWAPLAN VERSA-SMOOTH, beginning with a 1/2 m width, then a full 1 m width, side lapped 4 in. and end lapped 6 in. Apply at a right angle to the slope of the

roof. The AWAPLAN VERSA-SMOOTH should be solidly adhered to the base sheet (pressed into the hot asphalt) with approximately 23 lbs. (±15%) of specification asphalt per 100 sq. ft. The asphalt should be above 400° F at the point of application and mopped no more than 4 ft. in front of the roll.

Alternately, AWAPLAN VERSA-SMOOTH can be heat welded and should be solidly adhered to the base sheet by sufficiently heating the back side with a torch at the juncture of the base ply and the AWAPLAN VERSA-SMOOTH roll to form a bead of melted asphalt as the AWAPLAN VERSA-SMOOTH is rolled out. Use care when applying heat as damage can occur to the product by overheating.

**VERSA-CAP FR:** Starting at the low point of the roof and offsetting the laps of the VERSA-SMOOTH, install 1 layer of TAMKO VERSA-CAP FR granule surfaced sheet, side lapped 3 in. and end lapped 4 in. The VERSA-CAP FR should be solidly adhered to the VERSA-SMOOTH (pressed into the hot asphalt) with approximately 23 lbs. (±15%) of specification asphalt per 100 sq. ft. The asphalt should be above 400° F at the point of application and mopped no more than 4 ft. in front of the roll.

**Flashing:** The flashing material must be a TAMKO polyester reinforced modified asphalt flashing material.

**NOTE: VERSA-CAP FR IS NOT AN ACCEPTABLE FLASHING MATERIAL.**

**U.L. Requirements:** Contact TAMKO for information on U.L. systems requirements.

**Caution:** A product(s) in this specification contains crystalline silica and formaldehyde. Crystalline silica and formaldehyde have been classified as “known” human carcinogens by the International Agency for Research on Cancer (IARC) and the National Toxicology Program. A product(s) in this specification also contains oxidized asphalt. Occupational exposures to oxidized asphalt and its emissions during roofing have been classified by IARC as a “probable

human carcinogen". Oxidized asphalt also contains Polycyclic Aromatic Hydrocarbons some of which have been classified by IARC as known or probable human carcinogens. The physical nature of the product(s) in this specification may help limit any inhalation or dermal hazard during application and/or removal. However, physical forces such as sawing, grinding or drilling during demolition work and heating or burning may increase the inhalation or dermal exposure hazard of the product(s) in this specification. Take precautions to prevent breathing and contact with skin.

Application of product(s) in this specification using "torch applied" or "hot mopped" applications may expose workers and others in the work area to oxidized asphalt and its emissions. The International Agency for Research on Cancer has classified occupational exposures to oxidized asphalt and its emissions during roofing as a "probable human carcinogen." During installation and removal of the product(s) in this specification, including "torch applied" or "hot mopped" application, workers must take precautions to assure adequate ventilation and use effective personal protective equipment to prevent exposures to dusts, fumes, vapors and mists. It is the responsibility of the contractor and workers to protect themselves and others in the work area from exposure to oxidized asphalt and its emissions when applying the product(s) in this specification.